*U.S. Environmental Protection Agency*
**TMDL LISTENING SESSION**

**Theme: Scope and Content of TMDLs**

Doubletree Hotel
2001 Point West Way
Sacramento, CA 95815

November 1-2 2001

## Meeting Summary

The second in a series of five TMDL Listening Sessions was held on November 1-2, 2001, at the Doubletree Hotel in Sacramento, California. A copy of the agenda can be found at: http://www.epa.gov/owow/tmdl/meetings/sacramento/agendasacr.html. Approximately 150 people attended the meeting. This document summarizes the ideas discussed in plenary sessions by the participants at the meeting. Comments noted on worksheets from small group discussions and those submitted by individuals may be found at *Attachment A*.

## Welcome, Introductions, Review Meeting Agenda and Ground Rules

Mr. David Smith, TMDL Coordinator for EPA Region 9, introduced the additional listening panel members: Mr. Tom Christensen, Director of Animal Husbandry and Clean Water Programs, USDA Natural Resources Conservation Service; Ms. Karen Smith, Director, Arizona Department of Environmental Quality, Water Quality Division; Mr. Donald J. Brady, Chief, Watershed Branch, Office of Wetlands, Oceans and Watersheds, US EPA; and Mr. Jeff Lape, Acting Director of EPA Water Permits Division. and welcomed participants to the Listening Session. Mr. Christensen and Ms. Smith also added their welcomes to the meeting, noting among other things the special perspective of western states given the more arid environment and vast geographic scale in the West.

The facilitator, Ms. Gail Bingham, RESOLVE, reviewed the proposed meeting objectives, agenda and logistics.

## Presentation: TMDLs – Improving the TMDL Program

Mr. Brady provided a brief presentation to the group highlighting key aspects of the TMDL program, provisions of the current rule, status of future rulemaking and background on the issues concerning scope and content of TMDLs. A copy of the presentation found at: http://www.epa.gov/owow/tmdl/meetings/sacramento/. One participant raised a concern that the presentation should also note that EPA received comments in favor of including implementation plans in TMDLs.

Mr. Lape added his thoughts about the need for and benefit from the perspectives of those who are participating in the Listening Session. He shared his particular interest in ideas that may impact the NPDES permit program, specifically: (1) How can the timing of TMDL and permitting activities best be coordinated; (2) How can EPA coordinate data analysis between the two; (3) How can a permit be written in advance of a TMDL; and, (4) How can the NPDES program best be leveraged to support watershed-based efforts?

A general opportunity for questions or comments from session participants followed.

One participant commented that TMDLs should not be applicable to all water bodies and pollutants. He felt that the presentation demonstrated an assumption that TMDLs are the solution and EPA is only deciding how to apply them, when the real goal should be "how to correct impairment of water bodies," not just what the regulations should be for TMDLs.

Another participant asked for further information about the status of a current review of the water quality standards program, and how that might integrate with the TMDL and NPDES programs. Mr. Brady responded that there is an active group identifying issues based on interviews around the country and will produce recommendations in the foreseeable future. He offered to check on the timing.

An attendee pointed out that it appears to be EPA's intent that TMDLs be established for nonpoint source pollution and requested clarification on EPA's interpretation of its statutory authority regarding nonpoint sources. Listening panel members acknowledged that it is the current position of EPA that it is appropriate to address nonpoint sources in TMDLs based on its interpretation of 303(d) of the Clean Water Act; the agency is also aware that these are contentious issues. They encouraged Listening Session participants to articulate their own views on the subject during the course of the meeting.

One session attendee asserted that the format of the Listening Session didn't serve the needs of the average citizen well. One process concern articulated by several people was that the questions didn't focus on the issues of most concern to participants. The focus of the meeting should be on the cleanup of water bodies, a focus not clearly demonstrated at the Session. Another concern, expressed later in the meeting, was that the views of some constituencies were not well represented or were not clearly reflected in the discussion.

An individual asked for Listening Panel comment on the example of the listing of the San Joaquin River, precipitated in large part by reduced flows caused by dams which themselves were mandated by Congress in 1942. Now the State of California is required to implement TMDLs to address the impairment. Listening Panel members reflected that this example is common to many waters bodies in the West, which were altered by dams and diversions. The CWA creates a mechanism to protect water quality. Using CWA tools to reduce impairments due to diversions may be difficult. However, states are still required to address those waters. They suggested that participants might help EPA understand where and how

such challenges occur so it can find practical solutions on the ground.

A participant supported the view that the Clean Water Act is fundamentally good, but shared confusion about the interpretation by EPA regarding "all pollutants suitable for calculation." He asserted that some impairments, such as temperature or mercury, might not best be addressed through the TMDL program. Improving water quality, not how to get pollutant calculations, should be the goal. Another asked how states could best deal with overlapping statutes, such as the Clean Water Act and the Coastal Zone Act Reauthorization Amendments (CZARA), when implementation of one law spills into the planning and/or implementation of another. A listening panel member responded that the EPA is engaging in management discussions with the USDA to find out how to coordinate EPA and USDA programs to avoid duplication and redundancy. The Listening Sessions are also an example of an effort by EPA to get perspectives on the issues from stakeholders.

An individual asked for a clear, careful definition of "adaptive management." Listening panel members responded that adaptive management is the mechanism for continuing to measure the effectiveness of specific measures, established by the analysis of water bodies with the information available at a given time, and adjusting them as needed. A phased TMDL may be an example of adaptive management.

A participant also asked about the relative priority of the TMDL program among all the other EPA programs, with funding as one clear indicator of priority. He added that, without financial support to the states for monitoring and implementation of the TMDL program, EPA would not achieve desired water quality standards. Listening panel members agreed about the importance of resources to support the TMDL program, noting that there has been an increase in the funds provided by Congress to the states for the Section 106 and 319 programs. Federal and state resources are growing to address the TMDL program. Another participant asked about the use of 319 funds dedicated to the support of TMDL implementation, and the consequence to nonpoint source programs not involved in a TMDL. Panel members responded that the intention of current guidance is to balance between traditional 319 goals and the increasing focus on implementation of TMDLs; 319 funding is focused on these two objectives.

Next, the facilitator provided the group with instructions for small group discussions to follow the mid-afternoon break.

## **Facilitated Roundtable Discussions: How Specifically Should TMDLs be Defined in Regulations?** ***(Session I)***

Following the short break, participants engaged in small group discussions focusing on elements needed for effective implementation. A plenary session followed, in which the facilitator drew out highlights from the small group discussions.

***What should be the minimum elements of an approvable TMDL, and why?***

A participant stated that an approvable TMDL should contain a gross allocation to point- and nonpoint sources and stop there. States should be given the authority to be more detailed in the allocation if they want to. However, allocation among nonpoint sources cannot and should not be finely detailed. EPA should encourage voluntary programs and incentives to nonpoint sources. Another suggested that the EPA should approach the TMDL minimally in terms of federal requirements with an option to do more. Many people groups agreed on the need for flexibility and use of a watershed approach; some expressed concerns that the questions posed by the EPA presupposed the outcome. EPA should instead be asking, "How can water quality standards be achieved, and not limit the discussion to the elements of a TMDL."

Certain water quality parameters are not being adequately measured by TMDLs (i.e. biological assessments).

Several small groups reflected that they heard a diversity of viewpoints on the question of what should be included in a TMDL and could not reach a consensus on the issue. Some group members proposed that states develop minimum load allocations and then hand the process off to local entities. Alternatively, some felt that approaches for load allocation, waste load allocation and implementation plans could be integrated into a guidance document at the state level for EPA approval; this would result in flexibility at the state level to determine what is appropriate for that state. Another spokesperson asserted that TMDLs should be the actual load (a number) in order to be quantified. The load is for each "pollutant" not "pollution." When establishing a TMDL, water bodies should be evaluated to determine if they actually are impaired. EPA should give standards and guidelines, but let states allocate loads in collaboration with stakeholders in their own manner.

A participant commented on general challenges in determining minimum elements of an approvable TMDL, including how to define natural background, particularly for sediments. The TMDL also needs to be tied to beneficial uses. Another shared that the TMDL should have a quantifiable goal and identify elements of that goal (group members had differing views on what the goal might be).

Others felt that an appropriate response to a listing may be something other than a TMDL. One small group suggested that TMDLs should address seasonal variability in how loads should be allocated. An attendee stated that his group gravitated immediately to discussion of the listing process; group members supported a listing process every 4-5 years.

Others commented that load allocation should be as specific as possible to identify where pollution is coming from and allocate different pollutants from those sources. TMDLs also should have a process for implementing allocations, although participants were divided about whether implementation plans should be part of the TMDL itself. Many felt that the program

should be incremental and adaptive. However, many also expressed the view that states need to set goals and timetables for implementing TMDLs. Voluntary measures are desirable, but regulatory approaches should be implemented if the original goals and timetables are not achieved. Others felt that reasonable assurance needs to be provided for voluntary mechanisms (e.g. for nonpoint sources), as well as a finite time frame for the improvement of water quality.

Another group highlighted the issue of a margin of safety and pointed out that having insufficient data should not justify increasing the margin of safety because it make the TMDL unnecessarily stringent. Some felt that a cost/benefit analysis would be an improvement. An individual proposed a requirement to balance the costs of impairment and implementation and determine which will carry more weight.

***How can EPA balance the need of the permit program for waste load allocations (WLAs) that can easily translate into permit limits and the need to facilitate stakeholder involvement in identifying measures to achieve necessary load reductions?***

One small group focused on inclusiveness, equality and flexibility, and highlighted the importance that some sources are not being treated fairly and carry the burden for other sources. Group members asked how flexibility might be built into a system, along with realistic timelines and appropriate incentives. Others suggested utilizing a watershed approach to address the issue of flexibility. They emphasized the timing issues of stakeholder involvement and permitting.

Some small groups communicated that they did not understand the question. They asserted that stakeholder involvement should happen throughout the process. If stakeholder involvement occurs early and addresses specific allocations, then this does not need to be a tradeoff.

Implementation plans need to occur but participants disagreed if they should happen as a part of the TMDL itself or outside of it. An individual suggested that stakeholders should be able to go somewhere to get more information about how to achieve the water quality standard.

***Should TMDLs have different components and include different levels of detail for different pollutants, water bodies or source combinations to add flexibility and increase efficiencies?***

Many of the small groups answered “yes” that different levels of detail are appropriate. Specific concerns included how best to deal with background and legacy pollutants and atmospheric deposition. Many participants emphasized that each water body is different and will need a unique approach.

### *Open Session*

Participants at open session tables pointed out that there are cases in which there is no need for TMDLs. They discussed situations in which TMDLs may be inappropriate and could make matters worse. The small group proposed first developing reasonable goals/standards, utilizing the watershed approach, and, finally, looking at the watershed holistically.

### *Listening Panel Feedback*

Following the plenary report-out, listening panel members shared their observations and reflections on what was discussed. Mr. Smith reflected that a range of views were expressed regarding the level of detail for TMDLs; many participants emphasized that EPA should provide flexibility for a wide range of implementation approaches. He indicated that there was a fair amount of interest in the idea that EPA should do something to evaluate if water bodies are listed appropriately. Participants also highlighted the importance of timelines/timetables as an accountability mechanism for the TMDL process. There was broad interest in implementation plans but not necessarily in TMDLs as well as extensive discussion of utilizing a "watershed approach" without a lot of specificity about what that means. Mr. Smith asked participants to elaborate what they would like to see in a watershed approach during the course of the listening session.

Mr. Brady highlighted group discussions on goal setting and beneficial uses in the minimum element question. He noted the general interest in gross allocations between point and nonpoint sources with flexibility to empower watershed approaches generally at the state level, along with more specific local processes to balance interests in the watersheds. Mr. Brady also acknowledged that many participants also felt that TMDLs may not be appropriate to deal with all pollutants.

Mr. Christensen added the concern that stakeholders may be waiting to complete watershed processes as they wait for TMDLs. He asked about projects already underway and the impact the TMDL rulemaking process will have on that. Finally, Mr. Christensen asserted that the question of balance of costs is fundamental and leads to questions about equity: which groups can or cannot pass on costs.

## **Facilitated Roundtable Discussions: Opportunities for Improvement in the TMDL Program Generally** ***(Session II)***

During the second round of small group discussions, participants chose a substantive topic (listed below) and discussed the following questions with respect to that particular area: (1) What problems associated with the current TMDL program did the 2000 rule address well; (2) What problems either remain in or were created by the 2000 rule; and (3) What should EPA do to overcome problems in the 2000 rule? Again, the small group discussions were followed by a plenary session, in which the facilitator drew out highlights on each topic.

### *Listing*

Small groups discussing listing conveyed the need for consistent data requirements (both quality and quantity) prior to listing; some favored the idea of a tiered listing system. Others suggested that if it would be simple to come up with a use attainability analysis, it should be done before listing as well. Participants emphasized that whatever methodology is developed to list a water body should also be applicable for de-listing; this issue affects credibility and public support.

The listing process also should be based on better science. The data quality problem needs to be addressed through clear guidance and direction from EPA headquarters to the states.

One small group agreed on the principle of having more rigorous scientific requirements for a listing methodology, although participants could not agree on the roles of the states and EPA in setting that methodology. They proposed that instead of implementing a de-listing process EPA should focus on problems with existing lists, which should go through additional review using an approved methodology. Some proposed a re-evaluation of standards and to make it a high priority to go back early in the listing evaluation to address beneficial uses/standards. Some also thought that priority setting should be left to the states rather than included in new regulations. For example, the new rule gives priority to protecting drinking water supplies. The participant stated that states should have flexibility to decide priorities.

Spokespersons also expressed concerns regarding implementation; the general viewpoint supported drawing flexibly on all authorities at the state level to implement.

### *EPA Role*

The small groups discussing EPA's role agreed that EPA should look at regional, national, and inter-state issues, and provide reliable, consistent information to help the TMDL process along. EPA should also assist states to solve problems as partners, not be too prescriptive, and help in areas where states and stakeholders don't have expertise. There is a role for EPA to step in and determine if states are making progress in issuing TMDLs. EPA should also encourage monitoring and make sure that progress is being made to meet water quality standards in impaired waters.

### *Nonpoint Source TMDLs*

Some participants in small groups discussing nonpoint source TMDLs felt that it was good that EPA addressed nonpoint sources. They proposed increasing the listing cycle to 4 years, as well as addressing background/legacy sources. Others highlighted the challenge posed by the lack of adequate guidance on the data requirements for listing.

Others felt that nonpoint sources are too complex to manage with TMDLs. Some participants proposed that the EPA should start from scratch with a new Clean Water Act.

Some felt it is important to address atmospheric deposition of nonpoint sources, others did not.

Participants in one small group determined that a quantitative approach to addressing load allocations for NPS TMDLs is not adequate and recommended using strong incentives and business incentives to encourage implementation of best management practices. Finally, group members proposed that EPA should build in accountability and not get "stuck on" quantitative measures.

***Permitting***

Small group participants shared concerns that about storm water permits that normally focus on best management practices now will have TMDLs, with possibly a more quantitative or regulatory approach, imposed on top of that. Others cited discomfort about anti-backsliding policies that might result in permits being written that are too restrictive for receiving waters to meet standards. They asked that if the goal is to meet water quality objectives, why is there a need to meet target allocations?

Other challenges identified with permitting included: lack of public participation and outreach and writing permits prior to issuing a TMDL. One small group agreed that EPA must address the question of interim permits; their response should be in guidance, not in the rule. A spokesperson also expressed concern about "policy by permit." They expressed concern that policy was being made in individual permits. Participants proposed that EPA improve transparency, time for review, guidance, outreach, and explanation of standards and uses.

***Implementation***

One small group discussing implementation agreed that implementation planning is important, but disagreed about whether implementation plans should be required as part of a TMDL. Flexibility should be given at the state level in developing assurances about how to meet water quality standards. They shared concerns by private landowners about what they are faced with in implementing implementation plans. Some states stated that it would create more paperwork and prevent ongoing work on current watershed plans. Others pointed out that uniform, separate TMDL implementation requirements would make it more difficult to utilize many of California's unique programs and laws, which themselves are tools for improving water quality. Several suggested that the implementation plan constitutes a hindrance, are duplicative of other requirements such as 319 and CZARA, and didn't achieve creative solutions. Other participants disagreed, pointing out that plans are useful tools for ensuring that implementation occurs.

### *Additional Comments*

Open session participants recommended that EPA extend the listing timetable to 4-5 years, and explore allowing states to not list if they predict that the water body will meet standards within a reasonable time frame. They also suggested that there is no need for a new rule; instead, EPA should provide additional guidance, insight and consistency into the application of the existing rule.

### *Listening Panel Feedback*

Listening panel members highlighted participant comments recommending that de-listing criteria should match listing criteria, as well as ideas regarding tiered listing. They reflected that participants saw a role for EPA in providing good science, guidance to states, as well as good technical assistance. EPA should provide states with a "hand up not hand out" by providing special expertise. Panel members heard positive feedback that the 2000 rule addressed atmospheric deposition although some questioned whether or not it was done properly. Participants also pointed out the lack of adequate data and recognition of the complexities involved in managing water quality. There were comments on load allocations for nonpoint sources, suggesting that a quantified approach might not always not be practical; EPA should look at preventive approaches through watershed plans and use incentives and disincentives. Discussion also focused on utilizing a toolbox of programs and authorities and how those might fit in. Finally, with regard to permitting issues, participants questioned how to implement targeted reductions through permits that rely on best management practices, particularly regarding storm water.

## **Day One Wrap Up**

As Day One neared its conclusion, Jim Curtin, from EPA's Office of General Counsel, provided follow-up information to a question asked at the beginning of the meeting regarding EPA's interpretation of its legal authority to require TMDLs in waters impaired by nonpoint sources. He said that the legal debate arises because section 303(d) of the Clean Water Act does not specifically say "states must do TMDLs for waters impaired by nonpoint sources." Nor does it say "states need not do such TMDLs." The question of EPA and state authority to establish nonpoint source-related TMDLs has been briefed and argued up to the Ninth Circuit Court of Appeals, which might issue a decision soon. In its briefs, EPA argued that section 303(d) is placed within section 303 as a whole, which is titled "Water Quality Standards and Implementation Plans." Water Quality Standards are written for and apply to all waters, not just waters into which point sources discharge. EPA believes this fact, as well as language in section 303(d) stating that TMDLs are to be established at a level necessary to implement the applicable water quality standards, makes it reasonable to assume that if waters are impaired by point and nonpoint sources, or just nonpoint sources, Congress intended EPA and the states to have the ability to address both sources of pollution with a TMDL. EPA thinks that sections 319 and 303(d) can work together in a complementary

fashion and are not necessarily in conflict. EPA also notes that other sections of the CWA focused on nonpoint source issues contain references to "pollutants," suggesting that the definition of "pollutant" in section 502 cannot serve as a basis for arguing that TMDLs apply only to waters affected by point source discharges.

Day One of the meeting adjourned at 6pm.

**Day Two: Agenda Review and Day One Follow-up Questions**

The facilitator welcomed the group to Day Two of the Listening Session, and reviewed the agenda. She noted that there had been several comments on Day One about the agenda not including questions that participants would most like to address and asked participants to think about how many want to discuss questions outlined for Sessions III and IV. If many answer "yes," the group will stick with agenda. If only some would like to discuss these issues, then these topics could be addressed at different tables at the same time (requiring a choice amongst topics but allowing more time to discuss other issues or topics). A brief straw poll indicated that enough people wanted to discuss the questions on the agenda that the agenda was not changed, but separate tables were set aside for those not interested in those session topics to make best use of the discussion time.

Ms. Bingham reminded the group that EPA would welcome informal written comments, which should be sent to weinberg.anne@epa.gov. When EPA proposes a new rule in the Spring of 2002, a more formal, "notice and comment" rulemaking process also will take place, with EPA providing a response to comments. Written comments received now will become part of an informal collection of ideas and information that EPA will draw on in formulating its proposal. EPA is not under the same obligation to respond to written comments submitted now as it is during formal rulemaking. EPA is currently planning a new proposal and comment period for the spring. In the meantime, EPA will post meeting summaries of the Listening Sessions on the Internet.

Ms. Joanne Dee, EPA Headquarters Water Quality Standard Program, provided a brief update to the group on the water quality standards strategy in response to a question on Day One. She explained that six major areas will be covered in the strategy: requirements and flexibility, program integration, watershed level actions, scientific foundation, transparency and implementation, and capacity building and communication. EPA has conducted 43 group interviews, with over 325 participants, and has collected a lot of ideas regarding how to improve the process. EPA hopes to distribute a draft strategy by December. Ms. Dee encouraged stakeholders who are interested in receiving additional information or who would like to provide input regarding improvements to the program to contact Fred Leutner at leutner.fred@epa.gov, or (202) 260-1542.

Next, the facilitator asked for any follow-up reflections, questions or comments from Day

One. A participant asked for comments from the Listening Panel on how to handle situations where it might not be possible to meet water quality standards. A member of the Listening Panel replied that use designations are a part of the water quality standard; some states successfully modified uses and the option also exists of getting a site-specific variance to the standard. From the policy standpoint, there are mechanisms to change status and use, although the perception of changing use can be a political challenge. EPA fully supports use attainability analyses; if a target is not right, it should be fixed. The EPA is also exploring more actual uses, including the subcategory option.

A participant asked Mr. Lape about the relationship between permit conditions and adaptive management approaches to TMDLs. If a TMDL is developed based on the best data currently available, with the expectation that it will be refined later (either based on water quality improvements or the recognition that more needs to be done), can permits for point sources also be adjusted? Mr. Lape responded that he understands the concern. Permitting regulations say that the permitting limits have to be consistent with TMDL requirements. If the TMDL process is to have technical and scientific integrity, EPA needs to allow adjustments to occur. Other listening panel members shared that they are aware of the issue and agree conceptually with Mr. Lape's response and interest in finding a way to allow the watershed approach to occur. An attendee suggested that if Section 122.4 were adjusted to say "consistent with TMDL" instead of wasteload allocation, the problem would be solved. A participant noted that EPA and the states can't take a permitting approach to load allocations under the Clean Water Act so this has an impact on both trading mechanisms and, possibly, water quality.

## Facilitated Roundtable Discussions: Trade-offs Between Point and Nonpoint Sources *(Session III)*

Next, participants joined small group discussions to generate ideas on how TMDLs can best address trade-offs between point and nonpoint sources. Discussion focused on: (1) If implementation plans as defined in the 2000 rule are not a required element of a TMDL, how can a TMDL provide some assurance that nonpoint source reductions will occur and water quality standards are achieved, and; (2) How much certainty is needed that nonpoint source reductions will occur in blended waters so that permits can be issued based on these expected nonpoint source load reductions? A plenary session followed, in which representatives from each small group shared highlights of the discussion at their tables.

### *If implementation plans as defined in the 2000 rule are not a required element of a TMDL, how can a TMDL provide some assurance that nonpoint source reductions will occur and water quality standards are achieved?*

One small group considered that it may not be possible to achieve assurance without incorporating implementation plans; another voiced its disagreement about whether it should be done as part of the TMDL approval process. Some participants discussed the differences

amongst states in their authorities, suggesting that the rule should recognize California-type programs which are adequate and have state authority to implement load allocations for nonpoint sources. Other small groups discussed the need for some type of implementation plan and questioned if it should be mandated by states or subject to EPA oversight. Some participants shared discomfort with the question itself because it presumes that just because implementation plans are not a part of TMDL, implementation planning would not occur. As mentioned, in states like California, EPA should defer to existing authority.

One group pointed out the issue of Sovereign Nations/Tribes and asked if in those cases, EPA oversight may fulfill trust responsibilities that states do not have with those nations. Some voiced the concern that, on social justice issues, it may be more appropriate to have federal oversight of implementation.

Others suggested the need for mandatory implementation, again with no general agreement. A small group asked what happens if water quality standards are not met? Participants suggested the need for flexibility, feedback loops, and adaptive management, specifically on nonpoint sources. They emphasized that it takes time to see changes, especially in lakes. One small group agreed that implementation plans should be included in a TMDL but not be required to be approved by EPA. EPA also should tie 319 funding to impaired waters.

Group members discussed the potential use and viability of trading of offsets as a viable means to deal with cost. There are potential successes that might be achieved in watersheds from cross-pollutant trading.

One group thought that EPA needs to assign a time frame to achieve its goals, and states should control implementation. It highlighted that enforcement is problematic from an EPA perspective. Some participants noted that California and Oregon have broad authorities; one idea is to have EPA add a provision in the regulations allowing states that show adequate legal authorities to regulate point and nonpoint sources to write TMDLs without separate implementation plans being required.

Others suggested that a phased approach to TMDLs is desirable, separating the TMDL from the implementation plan, especially due to the lack of information on which to base allocations.

Finally, there is a need for effectiveness monitoring of best management practices.

***How much certainty is needed that nonpoint source reductions will occur in blended waters so that permits can be issued based on these expected nonpoint source load reductions?***

Some participants felt that implementation plans should be developed but not as a part of TMDL, and subject to EPA approval. Their small group discussion focused on practical

measures that would provide assurance. Stakeholders must buy into the need to do a TMDL; it is EPA's responsibility to explain why it is important to address. Key strategies include: public outreach, technology transfer, and data availability. Information about the outcomes of best management practices could help address the problem. A small group suggested that if EPA were going to implement a conservation or management plan outside of a TMDL, it would need certification over a period of time to evaluate the plan and effectiveness of controls and then make changes instead of reverting to the TMDL. In terms of accountability, there is a need to enhance evaluations of TMDL status, goals and process. Several small groups proposed enhanced targeting, focusing and funneling processes in the implementation plan and that EPA should provide guidance on those points. Participants also highlighted the need for remediation; when done without a TMDL, more support and backup is needed from EPA. The TMDL process should also account for diversity.

**Facilitated Roundtable Discussion: Technical Equivalents** ***(Session IV)***

Following the mid-morning break, participants engaged in the final small group discussion to identify and discuss ideas for using other existing mechanisms as an equivalant to a TMDL in certain circumstances. Discussion focused on: (1) Should TMDLs be required for all pollutant-waterbody-source combinations, or are there circumstances where a TMDL should not be required; and (2) Are there "technical equivalents" to a quantitative TMDL that could substitute for or replace TMDLs in blended waters or in nonpoint source only waters?

***Should TMDLs be required for all pollutant-waterbody-source combinations, or are there circumstances where a TMDL should not be required?***

Some participants proposed a two-step process. First, understanding the degree and sources of impairment, and then determining whether a TMDL is the best tool. EPA guidance could help set the minimum requirements for improving water quality, but allow flexibility in implementation strategies particularly where there are high levels of natural background, legacy pollution, and/or atmospheric deposition. Some of these impairments may not be able to be reduced through allocation to current sources.

Another small group proposed thinking about a highway with "off ramps." One would get on the highway through the listing process. There also should be an evaluation up front about whether the water quality standard and/or designated use(s) constitute the appropriate goals for the water body. For a water body that is impaired and on 303(d) list, the next task would be to determine the source(s). If the source cannot be controlled through the Clean Water Act, it would take an immediate off ramp (but to another set of tools for improving water quality) because the TMDL will be unable to achieve the desired results. In other situations, further down the "highway," the CWA may still be the best tool but an already-improving trend may be evident. In such cases, EPA and the states could consider an "off-ramp" to existing regulatory programs, with no need to do more through TMDL process itself. Still other situations would stay on the "highway" and result in a TMDL, with some of

these taking an off ramp for implementation plans through other programs while others will require an implementation plan through the TMDL program itself. Each off ramp takes you to a more effective solution, and in the end those that stay on the "highway" are the right ones for the TMDL program. It is important to have broad stakeholder involvement process along the entire "highway."

Another group reported that their idea of independent applicability was similar to the off ramp scenario. One example that raises concerns are TMDLs for temperature, where the numeric standard is exceeded but fish are fine. In one particular case, two of three attributes show designated uses being met. The spokesperson commented that EPA needs to give off ramps for such situations so that the state is not forcing a TMDL in a situation it cannot change. To ensure that the notion of "off ramps" isn't misused, however, it will be important to establish a clear understanding the problem and accountability in addressing it. The challenge of achieving both flexibility and certainty also will remain. Advocacy groups that want certainty won't want to give up on the TMDL program because it offers clearer accountability. Alternatives must be shown to be meaningful.

One small group asked if TMDLs are needed at all. EPA must get involved with other agencies in the process to share responsibility. Others voiced concerns about the implications of not requiring TMDLs. Where water quality is still impaired, they should still be required. How water quality improvements are achieved depends on the pollutant. EPA should recognize that other solutions may be unrelated to the TMDL process but those cannot be separated out from the need to achieve objectives for water quality. A small group representative noted that her group could not reach consensus on whether or not TMDLs should be established for legacy sources or for air deposition. Agreement that airborne deposition problems should be addressed within the confines of a TMDL would require cooperation among agencies. Some participants commented that, as EPA establishes a policy for how to handle legacy pollutants, it should base the policy on principles of equity.

**Are there "technical equivalents" to a quantitative TMDL that could substitute for or replace TMDLs in blended waters or in nonpoint source only waters?**

With regards to "technical equivalents," participants discussed different possibilities. By focusing on results, states would avoid having to spend a lot of time and effort on developing TMDLs. If they have programs that might get results, states should go about implementing them. A monitoring process could be put into place when programs are not achieving their desired outcomes. Transparency concerning the process would assist in making the case that alternatives to TMDLs will get a water body to its goal. EPA can identify flaws in the reasoning without micro-managing the process.

Another small group emphasized that alternative strategies must be allowed. They focused on the need for funding as a means to realize ongoing efforts. One operational equivalent might be the improvement of infrastructure or operations. Others suggested that there should

be strong incentives to allow groups and programs to be proactive and stay off 303(d) lists. They discussed alternative watershed plans as a functional equivalent and posed the question if narrative standards can be used instead of numeric targets. One small group suggested a number of things that could be used, such as the California nonpoint program with a three-tiered approach, interim goals, biological assessments and indices, watershed plans, etc. The value of the TMDL would be to ensure that equivalents would be implemented to meet the water quality standard. Finally a group recommended that EPA facilitate information sharing across programs, especially for more challenging strategies such as biological assessments.

***Additional Comments***

A small group felt strongly that guidance is needed to translate narrative criteria into numeric targets; EPA should develop guidance for interim permits as well. An individual urged that 319 funds be utilized to implement the TMDL program, while others were concerned that EPA will be diverting money from the 319 program away from educational programs, etc. when there should be another source of funding for TMDLs. A participant pointed out that the EPA must deal with consent decrees to address TMDLs. Finally a participant pointed out the importance of basing TMDLs on standards derived from meaningful, observable effects. If the standards are not right, it will be difficult to get the TMDLs right.

***Listening Panel Feedback***

Ms. Smith reflected that listening session participants generated a lot of great ideas and creativity for EPA to consider. She highlighted major themes of: flexibility, choices in the rule, and the need to apply the appropriate off ramp or tool to each problem. With regards to equivalent programs, EPA must first identify the problem and issues, collect data and then develop tools and a solution. EPA has done this before in other regulations and should do so again to allow choices for states. Finally, Ms. Smith noted that there is a recognition of the importance of implementation, with some feeling that implementation plans are a good thing in the TMDL program itself while others feel that the plans don't need to be approvable or bureaucratic so much as they need to be available to change and allow adaptive management.

Mr. Christensen addressed the tremendous gap participants identified between available resources and existing needs in the nonpoint source arena. EPA is currently working on a cost and capability assessment and has determined thus far that there is three to four times the demand than available resources. Participants also noted the need for follow up activity to be effective in the nonpoint source arena. EPA must also continue work on the effectiveness and economics of best management practices.

Mr. Lape articulated the challenge of crafting a new TMDL proposal and rule, and the need to be sensitive to stakeholder concerns. Participants at the meeting brought out several common themes; one is that, if EPA crafts the rule correctly it will build in sensitivity to flexibility in existing programs, as well as address underlying standards. Mr. Lape thanked the group for

the tremendous amount of insight they provided over the course of the meeting.

Mr. Smith commented that he was impressed by the thoughtfulness and good humor in the discussions as well as by the range of issues that came up beyond scope of TMDLs; EPA will take home strong messages about the need to develop workable mechanisms to review water quality standards where there are concerns about appropriateness. He also reported the strong interest in applying other implementation and planning mechanisms as equivalents or alternatives to TMDLs. Participants asserted that EPA could do better to sustain and support those things, including allocating funding for successful implementation. Finally, Mr. Smith noted hearing mixed messages about TMDLs including implementation plans. Implementation planning must create mechanisms of accountability. EPA will be challenged to figure out how to frame a rule of general applicability and provide sufficient guidance. Mr. Smith concluded that he heard some good ideas and good examples of how things can be done based on individuals' real experiences.

Mr. Brady voiced the need to craft a rule and approach that makes sense in the context of other programs so that the TMDL is not redundant or disruptive of existing activities. To the extent possible, EPA should build on existing mechanisms. Finally, participants shared a wide diversity of opinion illustrating the challenge of crafting the new rule. Mr. Brady conveyed his appreciation for the seriousness of the discussion.

**Wrap Up/Next Steps**

The facilitator thanked volunteer facilitators for their efforts and time at the listening session and asked participants to share their feedback on the format of the meeting with their facilitator before departing.

The meeting adjourned at 12pm.

*ATTACHMENT A*
**US EPA TMDL LISTENING SESSION, SACRAMENTO, CA**
**November 1-2, 2001**

## PARTICIPANT COMMENT WORKSHEETS

### Session One

*What should be the minimum elements of an approvable TMDL, and why?*

- basic, foremost element of TMDL must be valid listing process. List process is currently flawed and not based on complete water quality assessments. Must use best available science and entire ecosystem assessment, bioassessments, etc. Support NRC recommendation for 2 phase list process. 1. Is water body a "potential" impacted waters, then 2. Upon further assessment, is the water body "impacted"? Impact measured with respect to beneficial uses.
- need to consider both point sources and NPSs to be successful. States should have discretion as to how finely the load allocations for NPSs are determined, and should be based on available science.
- all TMDLs should include a use attainability analysis (UAA). The UAA should include identification of pollutant sources, responsible parties, discussion of how pollutants will be reduced, cost, and who will fund the program and time frame.
- load allocation - to major sources only, not individual businesses
- not implementation - leave to states to account for local conditions
- TMDL level for NPS should be consistent with science's ability to quantify
- it depends on situation, technology and knowledge available to acheive TMDL
- sustainability analysis should be a part of setting TMDLs
- a demonstration using enough data (as agreed upon by stakeholders) that: a) the water body is impaired - with data and/or use attainability, b) reducing load to meet WQs is achievable, c) WLA and LA as agreed upon by stakeholders and d) reopener clause / phased approach
- stakeholder partnership - load allocation regulation should recognize voluntary non-prescriptive options
- allocation of loads - must identify polluters and then hold them responsible
- include nonpoint sources
- time table for implementation
- costs do not belong in TMDLs
- identify problem, establish goal, assess achievability of goal, develop plan for achieving goal, implement, monitor, adjust accordingly
- an implementation plan that includes incentives for application and disincentives for failure to implement
- everything in the proposed 2000 rules
- EPA probably does not have authority to address nonpoint sources in TMDLs. To the extent it does, the TMDL must identify controlling water quality objectives /

standards. It is inappropriate to have any required and controlling element of a TMDL such as a "target" - that does not fully reflect the balancing of considerations reflected in the WQ objectives / standards. Voluntary actions by nonpoint sources should be encouraged, but it is very difficult for a TMDL to address the wide range of possible control mechanisms.

***How can EPA balance the need of the permit program for waste load allocations that can easily translate to permit limits and the need to facilitate stakeholder involvement in identifying measures to achieve necessary load reductions?***

- this question is confusing. Our whole table could not agree on what it meant
- ag is management based - permits can't be crafted to recognize management
- permit program should accept state and local regulations where those regulations adequately protect water quality. Do not have large margin of safety to off-set lack of science for setting TMDLs
- build partnerships
- need leadership
- stakeholder process flawed
- build technical consensus
- permit programs don't have a "need". People have needs and beneficial uses of streams have needs

***Should TMDLs have different components and include different levels of detail for different pollutants, waterbodies, or source combinations to add flexibility and increase efficiencies? Why? Under what circumstances?***

- absolutely. One size does not fit all. More importantly, TMDLs may not always be appropriate. If focus becomes strictly TMDL and specific targets and/or loads, than lose sight of larger goal of improving water quality. Need flexibility to be able to address the real objective of improving water quality and beneficial uses
- where TMDL is made up primarily of natural background pollutants then relax TMDL process - put money resources where most gain can be made
- attainability
- yes, depending upon site-specific conditions and sources and pollutant-type. Trash need not be as complex as copper for example, however both types must demonstrate need for TMDL
- yes, site-specific. Flexibility based on criteria - at least have minimum requirement for all
- absolutely. Some NPS pollutants lead to "qualitative" allocations; others to "quantitative" loadings. Need to combine a large tool bag of carrots and sticks. Stop trying to build one super stick by way of quantified loads.
- yes. Should some things not be in TMDLs? Probably - temperature (ambient air) and sediment in many undisturbed watersheds
- yes, because it's necessary to reflect water quality objectives/standards, and the fact that identification of impaired waters is not sufficiently segment-specific and listing

has been a fairly haphazard process. Particularly where toxics are an issue, timing / duration issues are important and must be fit with particular beneficial uses

**Session Two**

***What problems associated with the current TMDL program did the 2000 rule address well?***

- there is an implementation plan now - no consensus
- assure meeting WQs
- flexibility at state level

***What problems either remain in or were created by the 2000 rule?***

- many TMDLs are being developed with insufficient study. More thorough study and monitoring are needed to generate the quantitative TMDL (the number) and the allocation between point and nonpoint sources. More resources need to be devoted to the science at the beginning of the process and for monitoring

***What should EPA do to overcome problems in the 2000 rule?***

- change the listing time table to 4-5 years
- explore providing the ability to not list where other controls are in place that will achieve water quality standards within a reasonable amount of time
- provide the states with the ability to consider some point discharges “de minimus”
- we don’t need a new rule - we need more insight into application of the existing rule

**Session Three**

***If implementation plans as defined in the 2000 rule are not a required element of a TMDL, how can a TMDL provide some assurance that nonpoint source reductions will occur and water quality standards are achieved?***

- states develop plan for implementation, separate from TMDL, not subject to EPA approval
- put schedule, milestones and responsibilities into watershed implementation plans, tie 319 funds to implementation plans
- public outreach is key
- technology transfer (i.e. CTIC) needs to occur
- land use (ag v. urban) needs to be planned
- implementation plans are essential to affect our water quality standards. Wonder what industries/parties fought and effectively kicked out the requirement for the implementation plan. This is a societal problem - ownership and responsibility that must be addressed and assigned - because many of the nonpoint sources will not elect to take ownership of their own free will. That being said, implementation plans are key - thus auditing will be required. All we are doing then is creating a larger tool box that could easily become unmanageable, unwielding and disfunctional

- it's easy - disassociate yourselves from the phony "TMDL". Use a multitude of incentives and disincentives to pull point and nonpoint pollutions to the table in conjunction with government and technical teams to develop a qualitative plan. Governments must work together on disincentives for those who don't play.
- EPA should regularly audit the states' TMDL programs and review the listing procedure, scientific process used in developing selected TMDLs, how the state staff involve stakeholders throughout the TMDL study, and how staff are tracking source and load reductions. This should be done irrespective of whether an IP is a required element of a TMDL
- EPA should recognize the authority of state NPS programs such as CA's
- states should develop implementation plans to be reviewed by EPA as part of TMDL approval
- EPA should have performance standard requirements in regs to assure implementation plans will work
- progressively more stringent if states fail to develop plans or use state authority for NPS reductions
- by relying on appropriate state authority
- implementation plans should be developed at the state level, using existing state authorities such as the CA nonpoint source program and regional water board basin plans
- EPA should act as a backstop and provide guidelines for what elements the implementation plan should include. The State of CA has plenty of authority under its own authority to insure compliance with the plan. The EPA should accept states who have equivalent programs. EPA can act as enforcer for states that don't have adequate authority to control NPSs.
- funding programs targeted to sources identified
- empower local programs, watershed-based or industry-based
- educational programs

***How much certainty is needed that nonpoint source reductions will occur in blended waters so that permits can be issued based on these expected nonpoint source load reductions?***

- much certainty is needed to assure grower stakeholders are a contributor and that the water body is truly impaired. Need sound science and appropriate risk assessments
- look at problem holistically, not using TMDLs for specific problems in a watershed
- listing and beneficial uses need to be appropriate and need to take into account man-made waterways
- absolute certainty in the load reduction for NPS or urban areas is not feasible, and needs to be flexible
- certainty is essential and is part of the data set that allows for sound scientific decisions based upon the health of a watershed/waterbody. It is obvious from our discussions within this room that point sources are getting nailed simply because they are the permittees recognized by the regulatory bodies. The nonpoint sources are

safely secure in the shadow of the permitted point sources and should be required to come out of the shadow. We have to be cautious however to not overly penalize them and force them back into the shadows. I don't envy your position. I have seen how these large regulatory bodies function (or don't function). This is a huge task that is required of you and I applaud your effort to get our feedback.

- we're dealing in an uncertain world. We're uncertain if many existing standards are applicable**.** We're uncertain if many 303(d) listed waterbodies are applicable. The "relative certainty" of the watershed assessment that should be conducted as part of an implementation plan. That way, people do the best (commenserate with the level of knowledge) and then feed monitoring of plan implementation plan (includes success of incentives and disincentives) back into the next watershed assessment. That is adaptive management!
- should require same state of certainty for both blended and NPS-only waters
- need to know that there is voluntary willing participation by point and NPS; should include some sort of credible agreement between the parties, memorandums of agreement, could be monitored by objective, neutral 3rd party
- NPS sources need more flexibility and larger time frame for meeting percentage reductions. Permits should reflect these phased reductions over time
- data development on waterbody can provide trend analysis. Must reflect real conditions; must be timely. When dealing with NPS and variable weather certainty is target. Must allow for flexibility and adaptive processes

**Session Four**

***Should TMDLs be required for all pollutant-waterbody-source combinations, or are there circumstances where a TMDL should not be required (e.g. atmospheric deposition, legacy pollutants, etc)?***

- a TMDL should still be required in situations where impairment is caused by sources such as atmospheric deposition or legacy pollutants, but it should be recognized that full load reductions may not be possible. WLAs and LAs should be limited to load contributions by responsible entities, e.g., a municipality should not be expected to remove pollutants added via atmospheric depostion.
- no - many not appropriate - many situations don't lend themselves to numeric calculations
- no! - examples where TMDLs are inappropriate include: stream flow, stream temperature and sediment. In many cases there may be existing regulatory programs that address the problem. FERC, ESA are examples. Also, legacy pollutants are not well addressed through TMDLs. Question the listing of impairment up front
- no - some pollution is not amenable to numeric targets (e.g. temperature, flow, some sediment problems) but TMDLs can be broad plans to improve WQ in a watershed, then all pollutants can be addressed in TMDL plans - impaired waterbodies should have clean-up plans - TMDLs could be such a plan
- atmospheric deposition - TMDL not going to be effective

- superfund dredging - Grand Calumet River in Indiana, doesn't make sense
- water quality pollutants, legacy or not, are still contributing to impairments and non-attainment of beneficial uses. TMDLs should be required. But, how you address it depends on the type of pollutant. Atmospheric deposition contributes to impairments, so should be regulated
- if listing is incorrect
- narrative standard
- in general, even if pollutant comes from non or hard to control sources, going through list part of TMDL process (source i.d. and quantify) is very useful. Need flexibility for 2nd half - how to achieve complance
- listing criteria are critical issues - must be correct. TMDLs not appropriate for NPS only watersheds. NPS not technology based - rather management based. May not be able to allocate all of problems to a given source
- should not be required
- states to develop plan for implementation, separate from TMDL, not subject to EPA approval
- put schedules, milestones and responsibilities into watershed implementation plans, tie 319 funds to implementation plans
- public outreach is key
- technology transfer (i.e. CTIC) needs to occur
- land use (ag v. urban) needs to be planned

***Are there "technical equivalents" to a quantitative TMDL that could substitute for or replace TMDLs in blended waters or in nonpoint source-only waters?***

- a Use Attainability Analysis could be used to confirm whether a beneficial use is actually being impaired or whether the use is justified, or realistic. In a waterbody or segment where there is clearly impairment, but the source is not clear or there are multiple pollutants, a toxicity identification evaluation could identify pollutants which, together or separately, are causing impairment, and could possibly identify a target land use or entity (e.g. ag, industrial) where load allocations could be applied or management measures recommended
- states and stakeholders should be given flexibility in achieving water quality objectives and not be pushed into artificial TMDL calculations
- yes - BMPs, trading programs- watershed plans that are holistic in nature and suggest targets that are not necessarily numeric. EPA should provide incentives for voluntary measures. EPA should provide incentives that allow a polluter to take pro-active measures to stay off the 303(d) list.
- watershed management plans with teeth - enforceable state requirements, funding for state/local agency participation and monetary support for stakeholders. EPA needs a backstop for when such plans fail to produce results (threats to take over 303(d), withdraw NPDES authority, etc.)
- functional equivalents where a TMDL really wouldn't do any good - Great Lakes

Lakewide Management pland “LAMPS” that will have potential to target several contaminants/problems all at once - wasting a lot of money on individual TMDL studies v. putting the money toward programs that could get results, however some management plans have failed - 99% coming from air - mercury in Savannah River in GA (EPA established a TMDL for mercury and tried to pass the wasteload allocation onto 2 point source dischargers) - it was really an air pollution problem and should have been dealt with through the Clean Air Act and should not have been a TMDL as the problem couldn’t be solved by cleaning up the water effluent discharges. Also there is a problem when looking at fish toxicity - how do you know what is causing it? - a TMDL might be inappropriate

- watershed management plan
- state and local programs developing a watershed-based management plan
- basin plans of regional boards can serve same purpose as a TMDL
- ranch plans as part of a watershed plan
- management based v. technology-based TMDLs
- 3 tier NPS plan
- yes - for instance a creek restoration and habitat restoration sediment reduction project could be a technical equivalent for a pesticide TMDL which would have a greater impact for good on creek than to have pesticides completely removed and is more attainable - focus on results
- we don’t have “technical problems.” We have “people problems.” The solution thus is NOT technical, the solution lies in bringing “people” together! You need to disparately shift your standard “technical regulatory mode of thinking” if you’re ever going to solve this! Again, encourage people to come together through a basin by basin individually applied set of positive incentives combined with negative disincentives - implement both the results “qualitative” jointly built plan and the on-the-ground actions, monitor success and failure BOTH of the incentive/disincentive approaches used AND the on-the-ground practices and feed that back into the next round of planning. The quantum shift in thinking here is that this approach NECESSITATES federal/state and local governments to work together on packaging the many incentives and disincentives that already exist!! If EPA continues to play “parent” rather than “facilitator” then EPA will continue to isolate itself and serve as lightning rod for controversy and litigation. With that approach, the loser continues to be the water resource!

**Open Session**

- if a state develops a listing methodology, and upon review of the 303(d) list, finds waterbodies that would never have been listed under the methodology, those waterbodies should be allowed to be removed from the list
- the whole process is based on listing process and establishment of TMDL numerical goals - those 2 basic processes are key to success and attainability and implementation of TMDLs - both listing process and establishment of TMDL goals must be based on

sound science. Must reflect actual impairment of waterbody

- generally I want to stress watershed approaches to TMDLs. Example is Sacramento River watershed and mercury. The City of Sacramento could spend millions within the county and have virtually no effect on the levels of mercury in the Sacramento River. Remember that MS4s are point sources that are BMP and MEP standard based.